

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended) Male connector (1) for a guide wire (2), **wherein**

**the guide wire (2) comprises a guide wire core including a section that substantially extends through the guide wire (2) between a sensor at a distal end of the guide wire (2) and the male connector (1) at a proximal end of the guide wire (2), wherein**

the male connector (1) **comprising comprises** a core wire (3), a plurality of conductive members (4) spaced apart longitudinally along said core wire (3), **and** a plurality of conductors (5) disposed along the core wire (3), each of the conductors (5) being connected to a respective conductive member (4), wherein the core wire (3) has such a shape that at least one longitudinal cavity is provided inside the male connector (1), the longitudinal cavity being adapted to remain substantially intact when the male connector (1) is bent, thereby protecting the conductors (5), which are disposed in said cavity, from being damaged if the male connector (1) is bent, wherein the core wire does not have a solid circular cross section, **and wherein the core wire (3) is stiffer than the section of the guide wire core that substantially extends through the guide wire (2) substantially from the distal end of the guide wire (2) substantially to the proximal end of the guide wire (2).**

2. (previously presented) The male connector (1) according to claim 1, wherein the core wire (3) has a D-shaped cross section, and wherein said cavity is provided between an inner surface of the cylindrical conductive members (4) and the flat part of D-shaped core wire (3).

3. (previously presented) The male connector according to claim 2, wherein a continuous insulating material (6) is disposed between the conductive members (4) and the core wire (3), with a minimum of insulating material (6) being provided between the curved part of the D-shaped core wire (3) and the inner surface of the conductive members (4).

4. (withdrawn) The male connector (1) according to claim 1, wherein said cavity is provided by a longitudinal recess in the mantle surface of the core wire (3).

5. (withdrawn) The male connector (1) according to claim 1, wherein several cavities are provided by longitudinal recesses in the mantle surface of the core wire (3), and wherein each conductor (5) is disposed in a separate recess.

6. (withdrawn) The male connector (1) according to claim 1, wherein several cavities are provided by longitudinal recesses in the mantle surface of the core wire (3), and wherein each recess accommodates at least one conductor (5).

7. (withdrawn) The male connector (1) according to claim 4, wherein a continuous insulating material (6) is disposed between the conductive members (4) and the core wire (3), with a minimum of insulating material (6) being provided between the cylindrical part of the core wire (3) and an inner surface of the cylindrical conductive members (4).

8. (withdrawn) The male connector (1) according to claim 1, wherein said cavity is provided by a longitudinal hole in the core wire (3).

9. (withdrawn) The male connector (1) according to claim 8, wherein a continuous insulating material (6) is disposed between the conductive members (4) and the core wire (3).

10. (previously presented) The male connector (1) according to claim 1, wherein at least one of the conductors (5) is connected to a proximal end of the corresponding conductive member (4).

11. (withdrawn) The male connector (1) according to claim 1, wherein at least one of said conductors (5) is drawn in a loop, which extends towards a proximal end of the male connector (1) before going back to a distal end of a respective conductive member (4), where said conductor (5) is connected.

12. (previously presented) The male connector (1) according to claim 1, wherein the core wire (3) is provided with a layer of insulating material (12).

13. (previously presented) The male connector (1) according to claim 12, wherein the insulating material (12) comprises ceramic particles in a polymer matrix.

14. (previously presented) The male connector (1) according to claim 12, wherein the insulating material (12) comprises a metal oxidized to ceramic state.

15. (previously presented) The male connector (1) according to claim 14, wherein the core wire (3) is made of titanium, the surface of which is oxidized to titanium dioxide.

16. (previously presented) The male connector (1) according to claim 14, wherein the core wire (3) is made of a metal having a coating of aluminum, which is oxidized to  $\text{Al}_2\text{O}_3$ .

17. (previously presented) The male connector (1) according to claim 1, wherein the core wire (3) is made of an insulating material.

18. (previously presented) The male connector (1) according to claim 1, wherein the conductors (5) are provided with a layer of insulating material (13).

19. (currently amended) The male connector (1) according to claim 1, wherein the core wire (3) in the male connector (1) is separate from **a the guide wire core wire** in the guide wire (2).

20. (currently amended) The male connector (1) according to claim 1, wherein the core wire (3) in the male connector (1) is an extension of **a the guide wire core wire** in the guide wire (2).

21. (previously presented) The male connector (1) according to claim 1, wherein at least two points on the mantle surface of the core wire (3) are in contact with the inner surface of the conductive members 4, said points having such positions that the core wire (3) is a radially self-positioning core wire (3).

22. (previously presented) The male connector (1) according to claim 2, wherein the core wire (3) is made of titanium, the surface of which is oxidized to titanium dioxide.

23. (currently amended) A male connector (1) for a guide wire (2), wherein  
the guide wire (2) comprises a guide wire core including a section that  
substantially extends through the guide wire (2) substantially from a distal end of the  
guide wire (2) and substantially to a proximal end of the guide wire (2), wherein

the male connector (1) ~~comprising~~ comprises a core wire (3), a plurality of conductive members (4) spaced apart longitudinally along said core wire (3), and a plurality of conductors (5) disposed along the core wire (3), each of the conductors (5) being connected to a respective conductive member (4), wherein the core wire (3) has such a shape that at least one longitudinal cavity is provided inside the male connector (1), the longitudinal cavity being adapted to remain substantially intact when the male connector (1) is bent, thereby protecting the conductors (5), which are disposed in said cavity, from being damaged if the male connector (1) is bent, wherein the core wire is asymmetrical, and wherein the core wire (3) is stiffer than the section of the guide wire core that substantially extends through the guide wire (2) substantially from the distal end of the guide wire (2) substantially to the proximal end of the guide wire (2).

24. (previously presented) A male connector (1) for a guide wire (2), wherein  
the guide wire (2) comprises a guide wire core including a section that  
substantially extends through the guide wire (2) substantially from a distal end of the  
guide wire (2) and substantially to a proximal end of the guide wire (2), wherein

the male connector (1) ~~comprising~~ comprises a core wire (3), a plurality of conductive members (4) spaced apart longitudinally along said core wire (3), and a plurality of conductors (5) disposed along the core wire (3), each of the conductors (5) being connected to a respective conductive member (4), wherein the core wire (3) has such a shape that at least one longitudinal cavity is provided inside the male connector (1), the longitudinal cavity being adapted to remain substantially intact when the male connector (1) is bent, thereby

protecting the conductors (5), which are disposed in said cavity, from being damaged if the male connector (1) is bent, wherein said cavity is located within an extrapolated circumference of the core wire, and wherein the core wire (3) is stiffer than the section of the guide wire core that substantially extends through the guide wire (2) substantially from the distal end of the guide wire (2) substantially to the proximal end of the guide wire (2).

25. (withdrawn) The male connector (1) according to claim 24, wherein said cavity is located inside a hollow portion of the core wire (3).

26. (withdrawn) The male connector (1) according to claim 25, wherein each of the conductors (5) is located inside the hollow portion of the core wire (3).

27. (currently amended) A male connector (1) for a guide wire (2), wherein the guide wire (2) comprises a guide wire core including a section that substantially extends through the guide wire (2) substantially from a distal end of the guide wire (2) and substantially to a proximal end of the guide wire (2), wherein

the male connector (1) ~~comprising~~ comprises a core wire (3), a plurality of conductive members (4) spaced apart longitudinally along said core wire (3), and a plurality of conductors (5) disposed along the core wire (3), each of the conductors (5) being connected to a respective conductive member (4), wherein the core wire (3) has such a shape that at least one longitudinal cavity is provided inside the male connector (1), the longitudinal cavity being adapted to remain substantially intact when the male connector (1) is bent, thereby protecting the conductors (5), which are disposed in said cavity, from being damaged if the male connector (1) is bent, wherein at least one diameter of the core wire when taken on a plane normal to its longitudinal axis is shorter in length than another diameter of the core wire taken on the same plane, and wherein the cavity is adjacent to a surface of the core wire forming a terminus of the shorter diameter, and wherein the core wire (3) is stiffer than the section of the guide wire core that substantially extends through the guide wire (2) substantially from the distal end of the guide wire (2) substantially to the proximal end of the guide wire (2).

28. (previously presented) A male connector (1) for a guide wire (2), **wherein**

**the guide wire (2) comprises a guide wire core including a section that substantially extends through the guide wire (2) substantially from a distal end of the guide wire (2) and substantially to a proximal end of the guide wire (2), wherein**

the male connector (1) ~~comprising~~ **comprises** a core wire (3), a plurality of conductive members (4) spaced apart longitudinally along said core wire (3), **and** a plurality of conductors (5) disposed along the core wire (3), each of the conductors (5) being connected to a respective conductive member (4), wherein the core wire (3) has such a shape that at least one longitudinal cavity is provided inside the male connector (1), the longitudinal cavity being adapted to remain substantially intact when the male connector (1) is bent, thereby protecting the conductors (5), which are disposed in said cavity, from being damaged if the male connector (1) is bent, wherein at least one diameter of the core wire when taken on a plane normal to its longitudinal axis is shorter in length than another diameter of the core wire taken on the same plane, thus representing a shorter diameter, and wherein each of the conductors (5) is disposed adjacent to the surface of the core wire forming a terminus of the shorter diameter, and wherein each of the conductors are located within a distance from the surface of the core wire forming the terminus that is less than the difference in length between the longest diameter and the shorter diameter, **and wherein the core wire (3) is stiffer than the section of the guide wire core that substantially extends through the guide wire (2) substantially from the distal end of the guide wire (2) substantially to the proximal end of the guide wire (2).**

29. (New) The male connector (1) according to claim 1, wherein the core wire (3) has a larger outer circumference when taken normal to a longitudinal direction of extension of the core wire (3) than an outer circumference of the guide wire core section when taken normal to a longitudinal direction of extension of the guide wire core.

30. (New) The male connector (1) according to claim 24, wherein the core wire (3) has a larger outer circumference when taken normal to a longitudinal direction of extension of

the core wire (3) than an outer circumference of the guide wire core section when taken normal to a longitudinal direction of extension of the guide wire core.

31. (New) The male connector (1) according to claim 27, wherein the core wire (3) has a larger outer circumference when taken normal to a longitudinal direction of extension of the core wire (3) than an outer circumference of the guide wire core section when taken normal to a longitudinal direction of extension of the guide wire core.

32. (New) The male connector (1) according to claim 28, wherein the core wire (3) has a larger outer circumference when taken normal to a longitudinal direction of extension of the core wire (3) than an outer circumference of the guide wire core section when taken normal to a longitudinal direction of extension of the guide wire core.

33. (New) The male connector (1) according to claim 23, wherein the core wire (3) has a larger outer circumference when taken normal to a longitudinal direction of extension of the core wire (3) than an outer circumference of the guide wire core section when taken normal to a longitudinal direction of extension of the guide wire core.